

REMARKS

Claims 1-25 were previously pending in this patent application. Claims 1-25 stand rejected. Herein, Claims 1, 9, and 19 have been amended.

Accordingly, after this Amendment and Response, Claims 1-25 remain pending in this patent application. Further examination and reconsideration in view of the claims, remarks, and arguments set forth below is respectfully requested.

35 U.S.C. Section 103(a) Rejections

Claims 1-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cooreman et al., U.S. Patent No. 3,613,066 (hereafter Cooreman) in view of Laskowski, U.S. Patent No. 4,788,441 (hereafter Laskowski). These rejections are respectfully traversed.

Independent Claim 1 recites (as amended):

"An optical position-tracking system comprising:

a first light beam steering device for sweeping a first light beam through a first angular range ***to cause a reflection*** of said first light beam by a target ***back to said first light beam steering device to be reflected towards a first direction facilitating determination of a position of said target***, wherein said first direction is ***substantially parallel to a first light direction from which said first light beam is received at said first light beam steering device***; and

a second light beam steering device for sweeping a second light beam through a second angular range ***to cause a reflection*** of said second light beam by said target ***back to said second light beam steering device to be reflected towards a second direction facilitating determination of said position of said target***, wherein said second direction is ***substantially parallel to a second light***

direction from which said second light beam is received at said second light beam steering device, wherein said position of said target is determined using a triangulation technique utilizing a first angular value of said first light beam and a second angular value of said second light beam, and wherein said first angular value and said second angular value depend on the existence of said respective reflection."
(emphasis added)

It is respectfully asserted that there is no suggestion, motivation, or teaching found in the cited references (Cooreman and Laskowski) to combine them. Moreover, the combination of the cited references does not teach, suggest, or motivate all the limitations in Independent Claim 1.

Independent Claim 1 recites the limitations "***to cause a reflection*** of said first light beam by a target ***back to said first light beam steering device to be reflected towards a first direction facilitating determination of a position of said target***," (emphasis added), "said first direction is ***substantially parallel to a first light direction from which said first light beam is received at said first light beam steering device***," (emphasis added), "***to cause a reflection*** of said second light beam by said target ***back to said second light beam steering device to be reflected towards a second direction facilitating determination of said position of said target***," (emphasis added), and "said second direction is ***substantially parallel to a second light direction from which said second light beam is received at said second light beam steering device***," (emphasis added). In contrast to Independent Claim 1, Cooreman discloses in Figure 1 that the light sensitive receivers (14) and (15) receive the reflected light

from the target (i.e., pointer (2)) through the mirrors (6) and (7) which may be either translucent or bored with a central hole. [Cooreman; Figure 1; Col. 2, lines 40-53]. That is, the reflections from the target (2) go back to mirrors (6) and (7) and pass through the mirrors (6) and (7) instead of being reflected by mirrors (6) and (7) the towards a direction facilitating determination of the position of the target, as in the invention of independent Claim 1.

Moreover, Laskowski discloses a single scanning mirror (15) receiving the light from light source (62), steering the light towards the target (20), receiving the reflection from the target (20), and reflecting the reflection towards the direction of the photosensor (22). [Laskowski; Figure 1]. Since the light source (62) and the photosensor (22) are spaced apart, the direction traveled by the reflection after being reflected by the scanning mirror (15) is not parallel to the direction from which the light is received at the scanning mirror (15), as in the invention of independent Claim 1.

Continuing, Independent Claim 1 recites the limitation, "said ***position of said target is determined*** using a triangulation technique...***depend on the existence of said respective reflection***" (emphasis added). In contrast to Independent Claim 1, Laskowski uses Figure 17 to disclose scanners (11, 11a) to determine position of the object (144) by using the absence of reflected light from the object (144) instead of using the existence of reflected light from the object

(144). [Laskowski; Figure 17; Col. 12, lines 17-55]. That is, Laskowski teaches away from the invention recited in Independent Claim 1 because Laskowski discloses use of absence of reflected light from the object (144) to determine position of the object (144) while Independent Claim 1 is directed to use of the existence of reflected light from the object to determine the position of the object.

As described above, the combination of Cooreman and Laskowski does not teach, suggest, or motivate the cited limitations of Independent Claim 1. Therefore, it is respectfully submitted that Independent Claim 1 is patentable over the combination of Cooreman and Laskowski and is in condition for allowance.

Dependent Claims 2-8 are dependent on allowable Independent Claim 1, which is allowable over the combination of Cooreman and Laskowski. Hence, it is respectfully submitted that Dependent Claims 2-8 are patentable over the combination of Cooreman and Laskowski for the reasons discussed above.

With respect to Independent Claim 9, it is respectfully submitted that Independent Claim 9 recites similar limitations as in Independent Claim 1. In particular, the system of Independent Claim 9 comprises "a first light beam steering device **for sweeping a first light beam** through a first angular range to **cause a reflection** of said first light beam by a target **back to said first light**

beam steering device to be reflected towards a first direction facilitating determination of a position of said target, wherein said first direction is **substantially parallel to a first light direction from which said first light beam is received at said first light beam steering device**," (emphasis added).

Further, the system comprises "a second light beam steering device **for sweeping a second light beam** through a second angular range to **cause a reflection** of said second light beam by said target **back to said second light beam steering device to be reflected towards a second direction facilitating determination of said position of said target**, wherein said second direction is **substantially parallel to a second light direction from which said second light beam is received at said second light beam steering device**,"

(emphasis added). Continuing, Independent Claim 9 also recites "wherein **a position of said target is determined using a triangulation technique** utilizing a first angular value of said first light beam and a second angular value of said second light beam, and wherein said first angular value and said second angular value **depend on the existence of said respective reflection**"

(emphasis added). The cited limitations are not taught, suggested or motivated by the combination of Cooreman and Laskowski. Therefore, Independent Claim 9 is allowable over the combination of Cooreman and Laskowski for reasons discussed in connection with Independent Claim 1.

Dependent Claims 10-18 are dependent on allowable Independent Claim 9, which is allowable over the combination of Cooreman and Laskowski. Hence, it is respectfully submitted that Dependent Claims 10-18 are patentable over the combination of Cooreman and Laskowski for the reasons discussed above.

With respect to Independent Claim 19, it is respectfully submitted that Independent Claim 19 recites similar limitations as in Independent Claim 1. In particular, the method of optically tracking a target of Independent Claim 19 comprises "**sweeping a first light beam** through a first angular range **at a first location** and determining a first angular value of said first light beam" (emphasis added). Further, the method of Independent Claim 19 comprises "**sweeping a second light beam** through a second angular range **at a second location** and determining a second angular value of said second light beam" (emphasis added). Continuing, Independent Claim 19 also recites "when said target **causes a reflection** of said first and second light beams **back to said first and second locations respectively, reflecting said first and second light beams from said first and second locations respectively towards a direction facilitating determination of a position of said target and determining said position of said target** using a triangulation technique utilizing said first and second angular values which **depend on the existence of said respective reflection**, wherein said direction is **substantially parallel to a light direction**

from which at least one of said first and second light beams is received at one of said first and second locations," (emphasis added). The cited limitations are not taught, suggested or motivated by the combination of Cooreman and Laskowski. Therefore, Independent Claim 19 is allowable over the combination of Cooreman and Laskowski for reasons discussed in connection with Independent Claim 1.

Dependent Claims 20-25 are dependent on allowable Independent Claim 19, which is allowable over the combination of Cooreman and Laskowski. Hence, it is respectfully submitted that Dependent Claims 20-25 are patentable over the combination of Cooreman and Laskowski for the reasons discussed above.

CONCLUSION

It is respectfully submitted that the above claims, arguments, and remarks overcome all rejections. All remaining claims (Claims 1-25) are neither anticipated nor obvious in view of the cited references. For at least the above-presented reasons, it is respectfully submitted that all remaining claims (Claims 1-25) are in condition for allowance.

The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Please charge any additional fees or apply any credits to our PTO deposit account number: 23-0085.

Respectfully submitted,

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